

## **REMARKS**

### **Section 101 Rejections**

Claims 1-10 were rejected in the Office Action under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Specifically, the Office Action stated that claim 1 is directed "merely to an algorithm" and "does not apply the result to produce a useful, concrete and tangible result." See Office Action at ¶ 2, p. 2. Applicants have amended independent claim 1 to clarify that "a computing device" calculates the allocation percentage. Support for the amendment may be found throughout the application as filed. Claim 1 and its dependent claims recite statutory subject matter under § 101 because: (i) the claims are not directed to non-statutory algorithms; (ii) the claims produce concrete, useful, and tangible results; and (iii) the claimed process is tied to another category of patentable subject matter under § 101. The points are addressed in order below.

First, even if claim 1 is considered an algorithm, algorithms can be patentable subject matter under § 101. According to *AT&T v. Excel Communications, Inc.*, 50 USPQ2d 1447, 1450 (Fed. Cir. 1999), which is cited approvingly in the Office Action, mathematical formulas alone or mathematical algorithms alone are not patentable subject matter. The Federal Circuit in *AT&T* noted that any step-by-step process involves an "algorithm," and that because processes are a category of patentable subject matter under § 101, any proscription against patenting of a mathematical algorithm "is narrowly limited to a mathematical algorithm in the abstract." *Id.* Here, claim 1 is not directed to a mathematical algorithm in the abstract; nor has the Office presented any argument as to why it should be considered a mathematical algorithm in

the abstract. Moreover, because the recited steps are tied to a computing device, the claims are not directed to an algorithm alone. Accordingly, claim 1 and its dependent claims are not directed to non-statutory, abstract mathematical algorithms.

Second, the process of claim 1 produces a useful, concrete, and tangible result. The process is useful because, among other things, it eliminates the need for an investment fund to establish separate funds to accommodate investor groups with different risk profiles. The claimed processes are concrete because, among other things, they are reproducible. Following the claimed processes will always result in the establishment of the contractual arrangements and the calculation of the allocation percentage of the trading account for each investor group to account for profits and losses of the trading account. There is nothing hypothetical or conjectural about the claimed processes. Finally, the claimed processes are tangible because they involve real world steps that produce real world results. Establishing contractual arrangements and calculating allocation percentages with a computer device are not abstract steps, but rather real world activities. Therefore, claims 1-10 recite useful, concrete, and tangible results.

Third, claims 1-10 recite statutory subject matter because the claims are tied to an apparatus (i.e., a computing device), which is another category of patentable subject matter under § 101. See *In re Comiskey*, 84 USPQ2d 1670, 1678 (Fed. Cir. 2007); *Parker v. Flook*, 437 U.S. 584, 588, 198 USPQ 193, 197, n.9 (1978).

For at least these reasons, claims 1-10 satisfy the subject matter requirements of § 101. Furthermore, although not rejected in the Office Action, independent claim 21 has been amended in a manner similar to claim 1. For analogous reasons, applicants

submit that claim 21 and its dependent claims (i.e., claims 22-23) satisfy the subject matter requirements of § 101.

#### Section 112 Rejections

Claims 1-23 were rejected under § 112, ¶ 2, for various reasons. In this amendment:

- Claim 1 has been amended to provide an antecedent basis for the "trading cycle," as suggested in the Office Action;
- Claim 5 has been amended to change the term "the trading fund" to "the trading account," for which there is antecedent basis in claim 1; and
- Claim 18 has been amended to clarify that the claimed system comprises a computing device.

Therefore, applicants submit that claims 1-23 satisfy § 112, ¶ 2.

#### Section 103 Rejections

Claims 1-23 were rejected in the Office Action as being obvious under § 103(a) based on U.S. Patent 5,193,056 to Boes ("the '056 patent"). The '056 patent was the patent in suit in the case of *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 47 USPQ2d 1596 (Fed. Cir. 1998). In that case, the Federal Circuit described the '056 patent as follows:

The '056 patent is generally directed to a data processing system (the system) for implementing an investment structure which was developed for use in Signature's business as an administrator and accounting agent for mutual funds. In essence, the system, identified by the proprietary name Hub and Spoke (Registered), facilitates a structure whereby mutual funds (Spokes) pool their assets in an investment portfolio (Hub)

organized as a partnership. This investment configuration provides the administrator of a mutual fund with the advantageous combination of economies of scale in administering investments coupled with the tax advantages of a partnership. (*Id.* at 1598).

Thus, the '056 patent deals with a hub-and-spoke mutual fund arrangement, and has little relevance to an investment fund with separate tracking accounts for investor groups with different maximum leverage ratios. In its analysis, the Office Action seems to (i) equate the funds (or spokes) of the '056 patent with the investor group of the claims, and (ii) equate the portfolio (or hub) of the '056 patent with the trading account. See Office Action at ¶ 8, p. 4. The Office Action further acknowledges that the '056 patent does not teach or suggest the contractual arrangements in the claims, but says that since "contracts are old and well known, ... it would have been obvious to implement the Hub and Spoke partnership when forming the partnership portfolio [of the '056 patent] using a contract to inform each party of their obligations and compensation, since the partnership portfolio may legally be a trust." *Id.*

Even if this reasoning by the Office is true, it has no relevance to the claimed inventions here. If the partnership described in the '056 patent implemented the partnership using contracts, there is no suggestion in the '056 patent that the contracts would have anything at all to do with (i) limiting the recourse of the external lender to fund assets allocable to investors of an investor group if the tracking account associated with the investor group triggers a margin call on a loan from the external lender, and (ii) loan proceeds from the external lender and contributions from each investor of the fund being invested through a trading account associated with the investment fund, as recited in claim 1, for example. The '056 patent does not even mention leverage or margin calls, so it is not understood how the process of claim 1 could be obvious in view

of the '056 patent. In fact, because the '056 patent deals with a hub-and-spoke mutual fund arrangement, it has little relevance to a fund arrangement where different investor groups in the same fund have different leverage ratios.

The key to supporting any rejection under § 103 is the clear articulation of the reason why the claimed invention would have been obvious. See MPEP § 2142 (citing *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007)). Here, the Office Action has failed to provide a clear articulation of why it would have been obvious to establish separate tracking accounts for different groups of investors, depending on their leverage ratios, where the recourse of an external lender is limited to fund assets allocable to investors of the investor groups when the tracking accounts associated with the investor groups trigger a margin call on a loan from the external lender. In fact, the Office Action supplies no articulation at all as to why this is obvious.

Therefore, applicants submit that claims 1-23 are not obvious in view of the '056 patent.

#### New Claims

Claims 24-33 have been added as new claims. Support for the new claims may be found throughout the application as filed. Applicants submit that the new claims are patentable for the reasons set forth above.

#### CONCLUSION

Applicants respectfully submit that all of the claims presented in the present application, as either amended or initially presented in this response, are in condition for

allowance. Applicants' present Amendment should not in any way be taken as acquiescence to any of the specific assertions, statements, etc., presented in the Office Action not explicitly addressed herein. Applicants reserve the right to address specifically all such assertions and statements in subsequent responses.

Applicants have made a diligent effort to properly respond to the Office Action and believe that the claims are in condition for allowance. If the Examiner has any remaining concerns, the Examiner is invited to contact the undersigned at the telephone number set forth below so that such concerns may be expeditiously addressed.

Respectfully submitted,



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